EISENRING Appl. No. 10/519,491 May 24, 2006

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (Canceled)
- 2. (New) A process for manufacturing super capacitors storing electrical energy in resonance excited, crystalline, chemically dipolar nano-particles within an electrically insulating resin, comprising:
 - mixing fluid resin and nano-particles to obtain a mixture,
 - providing a compound film, said compound film comprising an isolated metallic foil,
 - applying said mixture onto said compound film by means of electrostatic spraying
 in order to obtain a coated film, whereby said metallic foil acts as a counter
 electrode, said electrostatic spraying generating an electrical field; and
 - forming geometrically exact layers and field-aligning said nano-particles by
 means of surface forces generated by said electrical field together with capacitive effects.
- 3. (New) A process according to claim 2, further comprising the step of cutting said coated film to obtain plural films, and arranging said films in layers to obtain a multilayer sandwich structure.
- 4. (New) A process for manufacturing super capacitors storing electrical energy in resonance excited, crystalline, chemically dipolar nano-particles separated by an electrically insulating resin, comprising:
 - providing a carrier surface,

EISENRING Appl. No. 10/519,491 May 24, 2006

- alternately depositing a layer of nano-particles and a layer of resin onto said surface by means of chemical or physical vapor deposition in order to obtain a sandwich structure,
- annealing said sandwich structure at a temperature of above 800°C for achieving a
 Rutile type crystal phase, and
- cooling said sandwich structure.
- 5. (New) A process according to any one of claims 2 to 4, wherein said nano-particles are comprised of TiO₂.
- (New) A process according to claim 5, wherein said nano-particles are comprised of SiO₂.
- 7. (New) A process according to any one of claims 2 to 4, wherein said resin is a polymer resin.
- 8. (New) A process according to claim 7, wherein said resin is SiO₂.
- 9. (New) A process according to claim 4, wherein said carrier surface is covered by a conductive material forming a bottom electrode.